

<b>REQUEST FOR QUOTATIONS</b> (THIS IS NOT AN ORDER)		THIS RFQ <input checked="" type="checkbox"/> IS <input type="checkbox"/> IS NOT A SMALL BUSINESS SET-ASIDE		PAGE 1 OF 12 PAGES	
1. REQUEST NO. N65540-06-Q-5011	2. DATE ISSUED 14-Nov-2005	3. REQUISITION/PURCHASE REQUEST NO. SEE SCHEDULE	4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1	RATING	
5a. ISSUED BY NAVAL SURFACE WARFARE CENTER, CARDEROCK CODE 3351.1, LINDA STIEMKE 5001 SOUTH BROAD ST. PHILADELPHIA PA 19112-1403 FAX NO. 215-897-7902 EMAIL: linda.stiemke@navy.mil			6. DELIVER BY (Date)  <b>SEE SCHEDULE</b>		
5b. FOR INFORMATION CALL: (Name and Telephone no.) (No collect calls) LINDA STIEMKE 215-897-1355			7. DELIVERY [ X ] FOB DESTINATION [ ] OTHER (See Schedule)		
8. TO: NAME AND ADDRESS, INCLUDING ZIP CODE			9. DESTINATION (Consignee and address, including ZIP Code) NAVAL SURFACE WARFARE CENTER, CARDEROCK RECEIVING OFFICER, FISC NAVAL BUSINESS CENTER 1601 LANGLEY AVE, BLDG 542 E PHILADELPHIA PA 19112-5051 TEL: FAX:		
10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5a ON OR BEFORE CLOSE OF BUSINESS: (Date) 06-Dec-2005					
<b>IMPORTANT:</b> This is a request for information, and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5a. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quote. Any representations and/or certifications attached to this Request for Quotations must be completed by the quote.					
11. SCHEDULE (Include applicable Federal, State, and local taxes)					
ITEM NO. (a)	SUPPLIES/ SERVICES (b)	QUANTITY (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
SEE SCHEDULE					
12. DISCOUNT FOR PROMPT PAYMENT		a. 10 CALENDAR DAYS %	b. 20 CALENDAR DAYS %	c. 30 CALENDAR DAYS %	d. CALENDAR DAYS No. %
<b>NOTE:</b> Additional provisions and representations [ ] are [ ] are not attached.					
13. NAME AND ADDRESS OF QUOTER (Street, City, County, State, and ZIP Code)			14. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION		15. DATE OF QUOTATION
			16. NAME AND TITLE OF SIGNER (Type or print)		TELEPHONE NO. (Include area code)

## Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0001

CLOSURE CAP

FFP

SNORKEL INDUCTION MAST CLOSURE CAP IN ACCORDANCE WITH  
TECHNICAL PACKAGE ENCL. (1), PAINTING PROCEDURE ENCL. (2),  
AND DRAWING NO. 501-4457344 REV. F

FOB: Destination

DWG NR: 501-4457344 Rev. F

PURCHASE REQUEST NUMBER: 52865398

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0002

TECHNICAL DATA

FFP

TECHNICAL DATA FOR ITEM 0001, IN ACCORDANCE WITH THE  
ATTACHED DD FORM 1423, CONTRACT DATA REQUIREMENTS LIST  
ENCL. (3)

\*NSP (NOT SEPARATELY PRICED)

OFFERORS ARE REQUESTED TO INCLUDE THE PRICE, IF ANY, FOR THE  
TECHNICAL DATA COVERED BY ITEM 0002 IN THE PRICE FOR THE  
SNORKEL INDUCTION MAST CLOSURE CAP COVERED BY ITEM 0001.

FOB: Destination

PURCHASE REQUEST NUMBER: 52865458

---

NET AMT

## Section C - Descriptions and Specifications

NOTES TO OFFERORS:

- 1) **EXPORT CONTROL WARNING FOR DRAWING NO. 501-4457344 REV. F**  
This drawing contains technical data whose export is restricted by the Arms Export Control Act (Title 22 U.S.C. 2751, et seq) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with the provisions of DOD Directive 5230.25.
- 2) **DISTRIBUTION STATEMENT D FOR DRAWING NO. 501-4457344 REV. F**  
Distribution authorized to the DOD and DOD contractors only, to protect critical technology, 20 October 2005. Other requests for this document shall be referred to Commander, Naval Surface Warfare Center, Carderock Division, Code 96, 5001 South Broad Street, Philadelphia, PA, 19112-1403.
- 3) The Snorkel Induction Mast Closure Cap shall be in accordance with Drawing No. 501-4457344, Revision F. This drawing has been marked with Distribution Statement D in accordance with DOD Directive 5230.24. In order to obtain the drawing, potential offerors must be certified by the Defense Logistics Information Service (DLIS) under the Joint Certification Program (JCP). Information on obtaining JCP Certification from DLIS can be obtained at [www.dlis.dla.mil/jcp/](http://www.dlis.dla.mil/jcp/). Requests for the drawing must include identification of the JCP certification number assigned by DLIS.

## Section E - Inspection and Acceptance

## INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Origin	Government	Destination	Government
0002	N/A	N/A	N/A	Government

## Section F - Deliveries or Performance

## DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	120 dys. ADC	3	NAVAL SURFACE WARFARE CENTER, CARDEROCK RECEIVING OFFICER, FISC NAVAL BUSINESS CENTER 1601 LANGLEY AVE, BLDG 542 E PHILADELPHIA PA 19112-5051 FOB: Destination	N65540
0002	120 dys. ADC	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	N65540

## Section I - Contract Clauses

## CLAUSES INCORPORATED BY REFERENCE

52.246-2

Inspection Of Supplies--Fixed Price

AUG 1996

## CLAUSES INCORPORATED BY FULL TEXT

## 52.219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (JUN 2003)

## (a) Definition.

"Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

(b) General. (1) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns shall be considered nonresponsive and will be rejected.

(2) Any award resulting from this solicitation will be made to a small business concern.

(c) Agreement. A small business concern submitting an offer in its own name shall furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States or its outlying areas. If this procurement is processed under simplified **acquisition** procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply to construction or service contracts.

(End of clause)

## 52.213-4 Terms and Conditions--Simplified Acquisitions (Other Than Commercial Items) (JUL 2005)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) clauses that are incorporated by reference:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

(ii) 52.222-21, Prohibition of Segregated Facilities (Feb 1999) (E.O. 11246).

(iii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iv) 52.225-13, Restrictions on Certain Foreign Purchases (Mar 2005) (E.o.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

(v) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(vi) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Pub. L. 108-77, 108-78)

(2) Listed below are additional clauses that apply:

(i) 52.204-7003, Control of Government Personnel Work Product (Apr 1992)

(ii) 52.232-1, Payments (Apr 1984).

(iii) 52.232-8, Discounts for Prompt Payment (Feb 2002).

(iv) 52.232-11, Extras (Apr 1984).

(v) 52.232-25, Prompt Payment (Oct 2003).

(vi) 52.232-7010 Levies on Contract Payments (SEP 2005)

(vii) 52.233-1, Disputes (Jul 2002).

(viii) 252.243-7001 Pricing of Contract Modifications (Dec 1991)

(ix) 52.244-6, Subcontracts for Commercial Items (Dec 2004).

(x) 52.253-1, Computer Generated Forms (Jan 1991).

(b) The Contractor shall comply with the following FAR and DFARS clauses, incorporated by reference, unless the circumstances do not apply:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Jun 2004) (E.O. 13126) (Applies to contracts for supplies exceeding the micro-purchase threshold.)

(ii) 52.222-20, Walsh-Healey Public Contracts Act (Dec 1996) (41 U.S.C. 35-45) (Applies to supply contracts over \$10,000 in the United States, Puerto Rico, or the U.S. Virgin Islands).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212) (Applies to contracts of \$25,000 or more).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793) (Applies to contracts over \$10,000, unless the work is to be performed outside the United States by employees recruited outside the United States.) (For purposes of this clause, United States includes the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.)

(v) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212) (Applies to contracts of \$25,000 or more).

(vi) 52.222-41, Service Contract Act of 1965, As Amended (Jul 2005) (41 U.S.C. 351, et seq.) (Applies to service contracts over \$2,500 that are subject to the Service Contract Act and will be performed in the United States, District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, Johnston Island, Wake Island, or the outer continental shelf lands).

(vii) 52.223-5, Pollution Prevention and Right-to-Know Information (Aug 2003) (E.O. 13148) (Applies to services performed on Federal facilities).

(viii) 252.225-7001, Buy American Act and Balance of Payments Program (Jun 2005) (Applies to all contracts for supplies unless an exception is authorized by DFARS 252.1101(2)(i) through (iv).

(ix) 252.225-7013, Duty-Free Entry (Apr 2003) (Applies to all contracts for supplies except those supplies that will not enter the customs territory of the United States).

(x) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (Oct 2003) (Applies when the payment will be made by electronic funds transfer (EFT) and the payment office uses the Central Contractor Registration (CCR) database as its source of EFT information.)

(xi) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999) (Applies when the payment will be made by EFT and the payment office does not use the CCR database as its source of EFT information.)

(xii) 252.247-7023, Transportation of Supplies by Sea (May 2002) Alternate III (May 2002) (Applies when transporting any supplies by sea under this contract.)

(2) Listed below are additional clauses that may apply:

(i) 52.204-7, Central Contractor Registration (Oct 2003) (Applies to all contracts unless an exception is authorized by FAR 4.1102(a).)

(ii) 252.204-7004, Alternate A (Nov 2003) (Applies if FAR 52.204-7 is applicable.)

(iii) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (JAN 2005) (Applies to contracts over \$25,000).

(iv) 52.211-5 Material Requirements (Aug 2000) (Applies to contracts for supplies that are not commercial items).

(v) 52.211-17, Delivery of Excess Quantities (Sept 1989) (Applies to fixed-price supplies).

(vi) 252.225-7002, Qualifying Country Sources as Subcontractors (Apr 2003) (Applies if the contract is subject to the DFARS clause 252.225-7001, Buy American Act and Balance of Payments Program (see (b)(1)(viii) above)).

(vii) 52.243-1, Changes--Fixed Price (Aug 1987) (Applies to fixed-price contracts for supplies).

(viii) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate I (Apr 1984) (Applies to fixed price contracts for services, other than architect-engineer or other professional services, and no supplies are to be furnished).

(ix) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate II (Apr 1984) (Applies to fixed price contracts for services (other than architect-engineer services, transportation, or research and development) and supplies are to be furnished).

(x) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate V (Apr 1984) (Applies to fixed price contracts for research and development).

(xi) 52.247-29, F.o.b. Origin (Jun 1988) (Applies to supplies if delivery is f.o.b. origin).

(xii) 52.247-34, F.o.b. Destination (Nov 1991) (Applies to supplies if delivery is f.o.b. destination).

(xiii) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (Applies if the contract amount is expected to be over \$2,500 and the contract is subject to the clause 52.222-41, "Service Contract Act of 1965, As Amended" (see (b)(1)(vi) above)). In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:

It is not a Wage Determination

Employee Class	Monetary Wage--Fringe Benefits
_____	_____
_____	_____
_____	_____
_____	_____

(xiv) 52.246-11 Higher-Level Contract Quality Requirement (Feb 1999) (Applies to contracts when the contracting officer finds it is in the Government's interest to require that higher-level quality standards be maintained and such standards are selected and identified in the clause). The Contractor shall comply with the higher-level quality standard selected below. [If more than one standard is listed, the offeror shall indicate its selection by checking the appropriate block.]

\_\_\_ ANSI/ISO/ASQ Q9001-2000

\_\_\_ MIL-I-45208

(c) FAR 52.252-2, Clauses Incorporated by Reference (Feb 1998). This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

FAR clauses - <http://www.arnet.gov/far/>

DFARS clauses - <http://www.acq.osd.mil/dp/dars/dfars.html>

(d) Inspection/Acceptance. The Contractor shall tender for acceptance only those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or re-performance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights--

(1) Within a reasonable period of time after the defect was discovered or should have been discovered; and

(2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(e) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(f) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop



all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges that the Contractor can demonstrate to the satisfaction of the Government, using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred that reasonably could have been avoided.

(g) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(h) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(End of clause)

## Section K - Representations, Certifications and Other Statements of Offerors

## CLAUSES INCORPORATED BY FULL TEXT

Your quotation must include the following information:

Cost breakdown by direct labor (list categories, hours and pay rates). In addition to the direct rates, provide the applicable indirect information (G&A), overhead, facilities capital cost of money (FCCM) and profit.

Business size:

Large \_\_\_\_\_ Small \_\_\_\_\_ Nonprofit \_\_\_\_\_

Cage Code \_\_\_\_\_

Tax Identification Number (TIN) \_\_\_\_\_

DUNS \_\_\_\_\_

## ELIGIBILITY REQUIREMENTS

All contractors and individuals doing business with the Federal Government must be registered at the Contractor Central Registration Database located at: <http://www.ccr.gov/>

## ELECTRONIC DISTRIBUTION OF CONTRACT DOCUMENTS

All contract award and contract modification documents will be distributed electronically using the Navy Air Force Interface (NAFI) system. The contractor's copy will be provided in portable document format (pdf) as an attachment to an e-mail that will be sent to the contractor by the NAFI system. A pdf file may be accessed using Adobe Acrobat Reader software. This is a free software that may be downloaded at <http://www.adobe.com/products/acrobat/readstep.html>

Provide the following information that will be used to make electronic distribution for any resultant contract:

Name of Point of Contact to Receive  
Distribution \_\_\_\_\_

Phone Number for Point of Contact \_\_\_\_\_

E-Mail Address for Receipt of Distribution \_\_\_\_\_

## USE OF THE GOVERNMENT-WIDE COMMERCIAL PURCHASE CARD

Will you accept the Government-wide Commercial Purchase Card as a method of purchasing supplies and/or services.

\_\_\_\_\_ Yes \_\_\_\_\_ No

Will you accept the Government wide Commercial Purchase Card as a method of payment for your invoice.

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

Note: The following provision 52.204-8 applies to this solicitation only when the solicitation includes the clause 52.213-4, Terms and Conditions—Simplified Acquisitions (Other Than Commercial Items)

52.204-8 Annual Representations and Certifications (Jan 2005)

(a)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (b) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

☐ (i) Paragraph (b) applies.

☐ (ii) Paragraph (b) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(b) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause #	Title	Date	Change
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of provision)

## Section M - Evaluation Factors for Award

TECHNICAL EVALUATION CRITERIA

The offeror's quotation shall also contain a **Technical Proposal** without any cost/ pricing information. The **Technical Proposal** shall contain sufficient information to enable Government personnel to make a thorough evaluation and arrive at a sound determination as to whether or not the **Technical Proposal** demonstrates the offeror's ability to understand and comply with the technical requirements of this Request for Quotation (RFQ). Statements which paraphrase the specifications or attest that "standard procedures will be employed", are considered inadequate in demonstrating the offeror's actual capability of meeting the specification requirements. Failure to submit a **Technical Proposal** shall result in the rejection of any quotation. As a minimum, the offeror's **Technical Proposal** must clearly provide the following information:

- a. **Machining/ Facilities:** Provide descriptions of machines, equipment, machine tools, facilities, and any other applicable information which demonstrates the capability to fabricate Submarine Mast Closure Caps as specified under this requirement.
- b. **Manufacturing Process:** The offeror shall provide a detailed description of the process it intends to use in the manufacturing of the Mast Closure Caps to be provided under this RFQ. This process shall address the type of construction, material composition, curing cycles and quality controls for the elimination of defects, to be utilized in the fabrication of the Mast Caps.
- c. **Corporate Experience/ Past Performance:** The offeror shall provide information which cites previous experience, either directly with the Government or with private parties, in the fabrication/ repair of fiberglass composites. This information shall cite Contract/ Purchase Number, Description of Item, Dollar Value, and Point of Contact. In addition, the offeror shall provide as least three (3) sources (either Government or Private Parties), which can provide recommendations with regard to the offeror's past performance. This past performance information shall be applicable to contracts/ purchase orders, that have been completed within the past three (3) years and shall contain Contract/ Purchase Number, Description of Item, Dollar and Point of Contact.
- d. **Inspection System/ Procedures:** The offeror shall provide sufficient information which clearly demonstrates their capability to comply with the required Quality/ Inspection System identified under Paragraphs 1.a. and 1.b., contained under the Quality Assurance Requirements, enclosed herein.

Quotations will be rated as Acceptable or Unacceptable under each of the evaluation factors identified above, and based on these ratings, assigned an overall rating of Acceptable or Unacceptable. In order for a quotation to be assessed as Acceptable on an overall basis, it must obtain an Acceptable rating in all four evaluation factors, and a rating of Unacceptable in any one factor will result in an overall rating of Unacceptable. Failure of an offeror to provide adequate information will result in a rating of Unacceptable.

N65540-06-Q-5011

TECHNICAL PACKAGE

SECTION I

SUPPLIES /SERVICES

SECTION II

DESCRIPTION /SPECIFICATIONS

SECTION III

INSPECTION AND TEST

SECTION IV

PACKAGING AND MARKING

SECTION V

DELIVERY SCHEDULE

ENCL (1)

**SECTION I      SUPPLIES / SERVICES**

<b><u>CLIN</u></b>	<b><u>Supplies / Services</u></b>	<b><u>QTY</u></b>
0001	Snorkel Closure Cap Dwg 501-4457344, Rev F	3 Ea
0002	Technical Data , in accordance with DD1423 (Exhibit A)	1 LT

## **SECTION II DESCRIPTION / SPECIFICATIONS**

### **Scope of Work for Snorkel Induction Mast Closure Cap Assemblies:**

#### **ITEM 0001**

1. The contractor shall provide three (3) each Snorkel Induction Mast Closure Caps, in accordance with NAVSEA Dwg. 501- 4457344, Rev F. The three (3) Closure Caps shall be serialized PC-11 thru PC-13.
2. The three (3) Closure Caps to be provided under NAVSEA Dwg. 501-4457344, Rev F shall be in accordance with Items 1, 2, 4, 5 and 9 of said drawing, however, all three (3) Closure Caps shall be one (1) inch longer (on the bottom side), than specified under the said drawing. The three (3) Closure Caps to be provided under Dwg. 501-4457344, Rev F, shall be provided with Items 2, 4, 5, and 9, of the said drawing, installed.

**Note: The contractor shall utilize only epoxy resins in the fabrication of the mast closure cap assemblies (Note 16) of Dwg. 501-4457344, Rev F**

3. The three (3) each Snorkel Mast Closure Caps shall be painted in accordance with Chapter 8 of SE110-BK-MMO-010. **"NO CAMOUFLAGE"**.

## **QUALITY ASSURANCE REQUIREMENTS**

1. Contractor's Quality/Inspection System:
  - a. The contractor shall maintain a written inspection system, which will assure that all supplies and services submitted to the Government for acceptance conform to contract requirements whether manufactured or processed by the contractor, or procured from subcontractors or vendors. The contractor shall perform or have performed the inspections and tests required to substantiate product conformance to drawing, specifications and contract requirements and shall also perform or have performed all inspections and tests otherwise required by the contract. The contractor's inspection system shall be documented and shall be available for review by the Naval Surface Warfare Center Carderock Division – Philadelphia Site, Naval Business Center, 4700 S. Broad Street, Phila., PA 19112-5083, Attn. Code 9613, after award of contract and throughout the life of the contract. The contractor shall notify the Naval Surface Warfare Center Carderock Division – Philadelphia Site in writing of any change to the inspection system. The inspection system shall be subject to disapproval if changes thereto would result in nonconforming product.

Vendors currently operating under ANSI/ISO/ASQ Q9001-2000 or MIL-I-45208 quality system will be deemed acceptable under this provision.

b. The Quality/Inspection System shall include the following:

- 1) Document Control
- 2) Purchasing
- 3) Control of Customer Supplied Material (Government Furnished Material)
- 4) Product Identification and Traceability
- 5) Process Control
- 6) Inspection and Testing
- 7) Inspection Measuring and Test Equipment Calibration in accordance with the requirements of ANSI/NCSL Z540-1.
- 8) Inspection and Test Status
- 9) Control of Nonconforming Product
- 10) Corrective Action
- 11) Handling, Storage, Packaging, and Delivery
- 12) Records
- 13) Controls to assure that requirements of this contract are invoked on subcontractors and the contractor verifies implementation by subcontractors.

## 2. Records:

a. For each assembly, component, delivered item, the supplier shall furnish one (1) copy of the following documents correlated to the contract number and serial number assigned to the assembly:

### 1) For Contractor-Furnished Raw Material:

- a) For contractor-supplied material, the contractor shall supply documented verification of raw material by alloy families using simple, direct and rapid analysis methods or a combination of methods (e.g., visual, hardness test, magnetic properties test, acid spot tests, and metal comparator tests).

2) The inspection records shall show the results of every dimension inspected and shall include the inspector's signature and date. The inspection records are to be maintained on Objective Quality Evidence Data Sheets (OQEDS) supplied by the contractor. Recording the results of dimensional inspections on a configuration facsimile of the component as shown on the applicable drawing is an acceptable OQED.

- a) ACTUAL measurements are required for the following characteristic:

- (1) Dimensions with a tolerance of +/- .005 or less"



- (2) Straightness of .010" per foot or less
  - (3) Geometric characteristics (forms, profile, orientation, location, run out, etc.) with a tolerance of .010" or less
  - (4) Finishes 32 or less.
  - (5) Angles +/- 1/2 degree or less
- b) Class 2 Threads shall be inspected in accordance with ASME B1.3, System 21 requirements and Class 3 threads or higher shall be inspected in accordance with ASME B1.3, System 22 requirements.
  - c) All of the supplied documents shall have complete traceability to the hardware for inspection purposes. Therefore, whenever applicable, records shall show: contract number, name of contractor, plan number, revision letter, piece number, serial letter/number of finished piece, and item nomenclature.
  - d) Records for each assembly, component, delivered item shall identify the inspection, measuring, test equipment, calibration dates and calibration due dates for inspection, measuring, and test equipment used during verifications, inspections, and/or tests.

### 3. Mercury Exclusion Clause:

- a. Mercury Contamination: The supplies furnished under this contract shall contain no metallic or mercury compounds and shall be free from mercury contamination (i.e., during the manufacturing process, testing, or inspecting) i.a.w. NAVSEAINST 5100.3D. The supplies offered shall not have come in direct contact with mercury or any of its compounds nor with any mercury-containing device employing only a single boundary of containment. (A single boundary of containment is one, which is not backed by a seal or barrier.) Mercury contamination of the supplies will be cause for rejection of the material.
- b. If there is reasonable cause to suspect the supplies of being contaminated by mercury, the following test may be used to determine whether contamination by metallic mercury exists: Enclose the equipment in a polyethylene bag or close-fitting airtight container and place in an oven at 135 degrees F +5 degrees F for one hour. Sample the trapped air and if mercury vapor concentration is 0.0 mg/cu meter or more, the material is mercury contaminated insofar as the requirements of this contract are concerned. Mercury vapor concentration can be determined with a mercury vapor detector such as a portable General Electric Vapor Detector (Catalog No. 8257557G-3), Bechman Instrument Model K-23, or other instruments that have equivalent range and capabilities. It should be noted that certain vapors such as benzene interfere with this type of mercury vapor detector and the detector should never be zero adjusted in any suspect atmosphere.
- c. If the inclusion of metallic mercury or mercury compounds is required as a functional part of the material furnished under this contract, the contractor shall obtain written approval from NAVSEA before proceeding with manufacture. The

contractor's request shall explain in detail the requirement for mercury, identify specifically the parts to contain mercury, and explain the method of protection against mercury escape. Such a request will be forwarded to the Government Inspector or Government Representative with a copy to NAVSEA. Upon approval by NAVSEA, the vendor will provide a warning plate as prescribed by enclosure (2) of NAVSHIPSINST 5100.28 which will include a statement that mercury is a functional part of the item and also the name and location of that part.

- d. If and to the extent that this contract calls for work to be performed by the contractor on a submarine, the contractor, in connection with such work, shall not bring into or utilize in the submarine any instrument or other device containing metallic mercury or mercury compounds, unless such equipment, instrument, or device has been approved by the Naval Sea Systems Command or authorized representative for use on a submarine.
- e. The contractor is required to certify via a certificate of compliance that:
  - i. The supplies furnished under this contract contain no metallic mercury or mercury compounds.
  - ii. The contractor has taken responsible steps to ensure that the supplies furnished under this contract are not contaminated with metallic mercury or mercury compounds.
- f. The requirements of this clause shall be included in all subcontracts hereunder. Technical question pertaining to the requirements of this clause shall be referred to NAVSEA via the Government Inspection or Representative.

### SECTION III

### INSPECTION AND TEST

- a. The contractor is required to perform all inspections to ensure the quality of the finished item and for providing inspection and test equipment necessary to ensure that the results of inspections and tests are accurate.
- b. Representatives of an assigned Contract Administration Office (CAO) shall make inspection of the supplies and services to be furnished hereunder, at the contractor's or subcontractor's plant (source).
- c. Due to the critical nature of this material, a representative of NSWCCD, Code 9613, is available to furnish technical assistance on all quality control matters. The contractor shall agree to notify the Naval Surface Warfare Center Carderock Division -- Philadelphia Site, Naval Business Center, Bldg. 29, Phila., PA 19112-5083, Attn. Code 9613, when material is ready for inspection so NSWCCD has the option of conducting a quality assurance surveillance on the material at the contractor's plant prior to shipment. A minimum of seven (7) days is required to arrange such a visit.
- d. This contract shall not be considered complete unless all documents and items required to be delivered under this contract are received and determined to be acceptable by NSWCCD.
- e. Unless otherwise specified, the supplier is responsible for the performance of all inspection requirements as specified herein. The Government reserves the right to perform any of the inspections set forth in the above requirements where such inspections are deemed necessary to ensure that supplies and services conform to requirements.
- f. Requests for engineering changes shall be submitted using MIL-STD-973 as a guide. Request for government acceptance of non-conforming material shall be submitted using a QA FORM 12 Modified "Departure from Specifications (DFS) form. Classification of major or minor waivers or deviations shall be in accordance with NAVSEAINST 5400.95C.
- g. Final acceptance will be performed by NSWCCD, Philadelphia, C/9613. Final acceptance by NSWCCD does not relieve the supplier of performing final inspection and test and delivery of the material in accordance with description requirements.

## **SECTION IV PACKAGING AND MARKING**

### **ITEM 0001**

1. All three (3) Closure Caps to be provided under CLIN 0001 shall be individually packaged in accordance with the latest edition of ASTM D3951-95 "Commercial Packaging of Supplies and Equipment", in effect on the date of purchase order award.

2. All three (3) Closure Caps to be provided under CLIN 0001 shall be marked in accordance with the latest edition of ASTM D3951-90 "Commercial Packaging of Supplies and Equipment", in effect on the date of purchase order award. In addition, the markings shall include the following:

- a. Nomenclature : Snorkel Mast Closure Caps
- b. Drawing number with revision number: 501-4457334, Rev F
- c. Assembly number / Part number : Item 1
- d. Applicable Serial Number:
- e. Ship To : NSWCCD, Philadelphia Navy Yard  
Bldg 542  
1601 Langley Street  
Philadelphia, PA 19112  
POC: P. Casasanto, C/9614

## **SECTION V**

## **DELIVERY SCHEDULE**

1. The three (3) each Snorkel Closure Caps, under CLIN 0001, shall be delivered within one-hundred and twenty (120) days after award of contract, and shall be shipped F.O.B., Destination
2. The Technical Data, under CLIN 0002, shall be delivered as per the enclosed DD1423.
3. All Items shall be delivered to (Destination):

Naval Surface Warfare Center, Carderock Division,  
Philadelphia Navy Yard, Bldg 542  
1601 Langley Street  
Philadelphia, PA 19112  
POC: P. Casasanto, C/9614

N65540-06-Q-5011

## CHAPTER 8 PAINTING PROCEDURES

### 8-1 PAINTS AND COATINGS

8-1.1 Paints conforming to MIL-P-24441B, reference (d), are required for priming and finishing fiberglass mast assemblies. See Table 8-1.

**TABLE 8-1. Paint and Coating Materials**

ITEM	RESIN	HARDENER	NSN
1.	Navy Formula 150 Green Primer MIL-P-24441/1B Part B	Navy Formula 150 Green Primer MIL-P-24441/1B Part A	8010-00-410-8452 - 2 gal. 8010-00-410-6757 - 10 gal.
2.	Navy Formula 153 Type III Dark Gray Exterior MIL-P-24441/23 Part B	Navy Formula 153 Type III Dark Gray Exterior MIL-P-24441/23 Part A	8010-01-350-4744 - 1 gal. 8010-01-302-3604 - 5 gal.

### 8-2 WORK AREA CONDITIONS

8-2.1 The work area should be isolated, clean, relatively dust-free, well-ventilated with a controllable temperature range from 50° - 95° F.

8-2.2 Relative humidity must be less than 80 percent.

8-2.3 The item to be painted must be at a temperature of 50° - 95° F.

8-2.4 Touch-up painting may be accomplished on installed assemblies only when required by restricted schedules. Follow the guidelines of paragraph 6-4.4.

### 8-3 PAINT MIXING AND USAGE INSTRUCTIONS

8-3.1 MIL-P-24441B is a two component epoxy paint system which will not harden unless both components are mixed together.

8-3.2 The use of thinner is limited to a maximum of one part solvent per five parts of epoxy paint (20% by volume). The only approved thinning agent is 50/50 mixture of naphtha and butanol.

8-3.3 Temperature of the paint should be held between 65° - 85° F for 24 hours prior to mixing.

8-3.4 Temperature of the paint and work area should be maintained at 50° - 95° F for optimal results.

# ENCLOSURES (2)

8-3.5 Mix component A and component B separately on a mechanical paint shaker, according to the following schedule:

CONTAINER SIZE	MIXING TIME
1 Quart	5 minutes
1 Gallon	10 minutes
2 Gallons	10-15 minutes
5 Gallons	15-20 minutes

8-3.6 After individual mixing, mix components A and B together in a 1:1 ratio by volume. If the entire containers are not to be mixed, the two quantities must be measured to confirm the 1:1 volume ratio. Mix according to the schedule in 8-3.5.

8-3.7 The stand-in time is the time required of a two-part paint to chemically combine after it has been mixed together. The paint system must be allowed to react for the appropriate stand-in time. The stand-in time varies with the work area temperature as follows:

WORK AREA TEMPERATURE	STAND-IN TIME BEFORE APPLICATION
50° -60° F.	2 hours
60° - 70° F.	1 ½ hours
70° - 90° F.	1 hour
90° - 95° F.	None

8-3.8 Paint coatings must not be applied below 50° F under any circumstances. The coatings will not cure properly.

**CAUTION**

Do not attempt to use the mixture beyond the limits shown.

8-3.9 All paint must be used within the following time limits for work area temperatures:

WORK AREA TEMPERATURE	TIME AFTER MIXING
50° -60° F.	8 hours
60° - 70° F.	6 hours
70° - 85° F.	4 hours
85° - 95° F.	Use Immediately

8-3.10 Do not use the mixture beyond the limits shown in the table above. Do not add thinner to extend pot life of the mixture.

## 8-4 PAINTING METHOD

8-4.1 A siphon cupgun is preferred to a pressure gun of any type, although the latter may be used. Use a Binks #17 or #18 model with a #66 nozzle, or a Binks #7 model with a #36 nozzle (or equivalents able to provide controlled spray pattern).

8-4.2 An approximate air pressure of 30-40 psi is required for the smooth application of Items 1-5 of Table 8-1.

8-4.3 An approximate distance of 12-14 inches should be maintained between the paint nozzle and the surface of the work-piece throughout the painting operation.

8-4.4 Care should be exercised to ensure that the spray coating is uniform, smooth and free from high and low areas. A haphazard application will affect the mast dimensional sizes making it impossible to maintain uniform bearing clearances.

## 8-4.5 DRYING TIMES AND PAINT THICKNESS

### **CAUTION**

One spray coating (medium) is approximately 1.5 mils thick wet. Care should be exercised to ensure that the finished mast, radome, or inner mast outer diameter is not oversized.

8-4.5.1 On heavy coats (approximately three mils wet), wait a minimum of eight hours between coats. On medium coats (approximately 1.5 mils wet), wait a minimum of one hour between coats. Wet film thickness (WFT) can be measured with a Nordson wet film thickness gage (or equivalent). Measure the WFT on a test piece to ensure proper settings of the spray guns.

8-4.5.2 Light sanding and surface cleaning is recommended when the cure time between coats exceeds six hours.

8-4.5.3 If more than seven days elapse after application of a coat, a tack coat must be applied before the application of the next coat.

## 8-5 PAINTING INSTRUCTIONS

8-5.1 Prior to painting, a disassembled faired mast must be reassembled. In addition, all closure caps, masts, and radomes must be resin sealed with Item 2, Table 6-1 and sanded to satisfy the surface requirements of paragraph 6-8.1a.

8-5.2 The designated paints for the closure caps, radomes, inner masts, and faired masts are provided in Table 8-2. The item numbers refer to Table 8-1. For closure caps with RAM see reference g.



**TABLE 8-2. Designated Paints**

COMPONENT	PRIMER COAT	FINISH COAT
Faired Mast Closure Cap (without RAM)	Item 1 (Green)	Item 2 (DarkGray)
Radome Closure Cap	Item 1 (Green)	Item 1 (Green) Item 2 (DarkGray)
Radome	Item 1 (Green)	Item 1 (Green)
Inner Mast	Item 1 (Green)	Item 2 (DarkGray)
Faired Mast	Item 1 (Green)	Item 2 (DarkGray)

### 8-5.3 PAINTING OF CLOSURE CAPS

8-5.3.1 The painting procedure for faired mast closure caps is designated in Table 8-3 for various fairing assemblies. This procedure applies to caps that are not covered with radar absorbent material (RAM). See reference g. for application/painting of RAM on closure caps. Caps that must be stored or transported prior to RAM application may be covered with a prime coat of Item 1 according to paragraphs 8-5.3.2.1 through 8-5.3.2.3. This coat must be removed prior to application of the RAM.

#### 8-5.3.2 PAINTING OF FAIRED MAST CLOSURE CAPS

8-5.3.2.1 Abrade the surface of the cap with #100 - #200 grade silicon carbide paper. Wet sand a previously painted cap and dry sand a bare fiberglass cap.

8-5.3.2.2 Remove all traces of sand and grit from a painted surface with a solvent mixture or equal parts by volume of xylene and isopropanol, and wipe with a cloth. Wipe sand and grit from a bare fiberglass surface with acetone.

8-5.3.2.3 Spray the cap with one coat (1.5 mils wet) of Item 1, Table 8-1 as the prime coat.

8-5.3.2.4 After a minimum of six hours cure time, sand the prime coat lightly with #280 grade silicon carbide dry paper. Repeat paragraph 8-5.3.2.2.

8-5.3.2.5 Spray the cap top with 7 coats (1.5 mils wet) of Item 2, Table 8-1 waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.3.2.6 Wait a minimum of twelve hours for the final coat to harden and then lightly sand the surface smooth using #400 grade silicon carbide paper (wet) to obtain a 32 microinch finish. Use fresh water to clean all residue from the surface.

#### 8-5.3.3 PAINTING OF RADOME CLOSURE CAPS

8-5.3.3.1 Abrade, clean, and prime the cap using the instructions of paragraphs 8-5.3.2.1 through 8-5.3.2.4.

8-5.3.3.2 Spray the top and the sides of the cap with 7 coats (1.5 mils wet) of Item 2, Table 8-1 waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.3.3.3 Spray the sides of the cap with 7 coats (1.5 mils wet) of Item 1, Table 8-1 waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.3.3.4 Wait a minimum of twelve hours for the final coat to harden and then lightly sand the surface smooth using #400 grade silicon carbide paper (wet) to obtain a 32 microinch finish. Use fresh water to clean all residue from the surface.

#### 8-5.4 PAINTING OF RADOMES

8-5.4.1 Abrade the radome surface with #100 - #200 grade silicon carbide paper. Wet sand a previously painted radome and dry sand an unpainted radome.

8-5.4.2 Remove all traces of sand and grit from a painted surface with a solvent mixture or equal parts by volume of xylene and isopropanol, and wipe with a cloth. Wipe sand and grit from an unpainted radome with acetone.

8-5.4.3 Spray the radome with one coat (1.5 mils wet) of Item 1, Table 8-1 as the prime coat.

8-5.4.4 After a minimum of six hours cure time, sand the prime coat lightly with #280 grade silicon carbide dry paper. Repeat paragraph 8-5.4.2.

8-5.4.5 Spray the radome with 7 coats (1.5 mils wet) of Item 1, Table 8-1 waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.4.6 Wait a minimum of twelve hours for the final coat to harden and then lightly sand the surface smooth using #400 grade silicon carbide paper (wet) to obtain a 32 microinch finish. Repeat paragraph 8-5.4.2. Use fresh water to clean all residue from the surface.

#### 8-5.5 PAINTING OF INNER MASTS

8-5.5.1 Abrade the inner mast surface of the cap with #100 - #200 grade silicon carbide paper. Wet sand a previously painted inner mast and dry sand an unpainted inner mast.

8-5.5.2 Remove all traces of sand and grit from a painted inner mast with a solvent mixture or equal parts by volume of xylene and isopropanol, and wipe with a cloth. Wipe sand and grit from an unpainted inner mast with acetone.

8-5.5.3 Spray the inner mast with one coat (1.5 mils wet) of Item 1, Table 8-1 as the prime coat.

8-5.5.4 After a minimum of six hours cure time, sand the prime coat lightly with #280 grade silicon carbide dry paper. Repeat paragraph 8-5.5.2.

8-5.5.5 Spray the inner mast with 7 coats (1.5 mils wet) of Item 2, Table 8-1 waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.5.6 Wait a minimum of twelve hours for the final coat to harden and then lightly sand the surface smooth using #400 grade silicon carbide paper (wet) to obtain a 32 microinch finish. Use fresh water to clean all residue from the surface.

## 8-5.6 PAINTING OF FAIRED MASTS

8-5.6.1 Abrade the surface with #100 - #200 grade silicon carbide paper. Wet sand a previously painted mast and dry sand an unpainted mast.

8-5.6.2 Remove all traces of sand and grit from a painted mast with a solvent mixture or equal parts by volume of xylene and isopropanol, and wipe with a cloth. Wipe sand and grit from an unpainted mast with acetone.

8-5.6.3 Where applicable, cover the grounding strips and all other mast hardware items with masking tape for protection from paint. Do not apply paint to the faired mast external or internal grounding strips or the internal bearing areas.

8-5.6.4 Spray the mast with one coat (1.5 mils wet) of Item 1, Table 8-1 as the prime coat.

8-5.6.5 After a minimum of twelve hours cure time, sand the prime coat lightly with #280 grade silicon carbide dry paper. Repeat paragraph 8-5.6.2.

8-5.6.6 Spray the faired mast with a total of 7 coats (1.5 mils wet) of Item 2, waiting a minimum of one hour between coats, or 3 coats (3 mils wet) waiting eight hours between coats.

8-5.6.7 Remove the masking tape from the grounding strips and other mast hardware, if applicable.

8-5.6.8 Allow a minimum of twenty-four hours for the final coat to harden and then lightly sand the surface smooth using #400 grade silicon carbide paper (wet) to obtain a 32 microinch finish. Use fresh water to clean all residue from the surface.

## 8-6 ACCELERATED CURING OF FINISHES

8-6.1 Accelerated curing of finishes is not recommended but can be done using a heat source.

8-6.2 Prepare the surface as described in the preceding paragraphs.

8-6.3 Erect temporary cover, in the form of a tent, around the work-piece providing room for the workman.

8-6.4 Apply the finished paint coatings according to the preceding procedures.

8-6.5 Allow the final coat to air dry for four hours.

8-6.6 Heat the workpiece indirectly and evenly to a temperature of 120° - 160° F using a local heat source. Avoid hot spots. Heat for 24 hours at 120° - 160° F before subjecting workpiece to clamping, loading, corrosive agents, or immersion.

8-6.7 Wet sand using #400 grade silicon carbide paper to obtain a 32 microinch finish.

8-6.8 Clean all residue from the surface with fresh water.

## 8-7 POST-PAINTING REQUIREMENTS

8-7.1 Spray equipment should be cleaned immediately after use in order to prevent hardening of paint in the spray gun.

8-7.2 All cloth saturated with acetone or xylene and isopropanol should be discarded in covered waste cans. Do not leave saturated cloth uncovered in a poorly ventilated room, as this creates a fire hazard due to low solvent flashpoints.

## 8-8 PRECAUTIONS FOR CURED COATINGS

8-8.1 The finish coats listed in Table 8-1 must be allowed to dry for a minimum of 48 hours at a minimum temperature of 70° F before being subjected to clamping, loading, corrosive agents, or immersion.

## 8-9 PAINT INSPECTION CRITERIA

8-9.1 After the finish coats have cured sufficiently, inspect the closure cap, radome or faired mast for the following:

- a. The paint film must have a minimum thickness of 5.0 mils dry. Measure major and minor chord dimensions to verify 5.0 mils dry application.
- b. The paint finish shall be free of runs and sags.
- c. Verify by mechanical or visual means that all bearing surfaces have a 32 microinch finish.
- d. The paint finish shall be hard and not capable of being deformed by a firmly pressed edge such as that of a putty knife.
- e. If applicable, the grounding strips and other hardware shall be clean and free of paint and corrosion.

ENCL(3)